

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method of constructing home-state information in a home network, comprising:

a) constructing a home-state set using a plurality of home-state information sources which expresses the home-state information sources and all the combinations of the home-state information sources;

b) constructing home-state objects which are specific instances of the home-state set; and

c) constructing home-state properties expressing properties of the home-state objects which specify characteristic parts of home-state information sources.

2. (currently amended): The home-state information constructing method according to claim 1, wherein the home-state set comprises common profiles of the home-state information sources.

3. (currently amended): The home-state information constructing method according to claim 2, wherein operation a) comprises, a1) constructing unique profiles of the ~~respective home-~~state information sources.

4. (original): The home-state information constructing method according to claim 3, wherein operation a1) comprises, constructing home device profiles and constructing external home service profiles.

5. (currently amended): The home-state information constructing method according to ~~claims~~claim 2, further comprising setting rules for information source objects which form profiles of the home-state information sources and a combination thereof, the rules being applied to a specific home-state object.

6. (original): The home-state information constructing method according to claim 5, wherein the rules are personally defined by a home user.

7. (original): The home-state information constructing method according to claim 5, wherein the rules are provided from an external home service provider.

8. (original): The home-state information constructing method according to claim 1, further comprising combining a user interface with the home-state information to show the home-state set, the home-state objects and the home-state properties to a user.

9. (original): The home-state information constructing method according to claim 8, further comprising combining an Application Programming Interface (API) with the home-state information to enable the constructed home-state information to be accessed from an external application.

10. (currently amended): A home agent device comprising:

- an information collecting module operable to collect information from various information sources in ~~the~~a network;
- a home-state generating module operable to process the collected information to generate ~~the~~ home-state information;
- a home-state analyzing module operable to analyze the generated home-state information depending on home-state properties; and
- a home-state storing module operable to store the information generated by the home-state generating module and information analyzed by the home-state analyzing module in a computer-readable memory.

11. (original): A home agent device according to claim 10, wherein the home agent device is implemented by a separate device or mounted on a gateway, to collect information from information sources in a network and construct home-state information using the collected information.

12. (original): The home agent device according to claim 11, further comprising an event generating module operable to announce an event outside of a home depending on results analyzed by the home-state analyzing module.

13. (currently amended): The home agent device according to claim 11, wherein the information collecting module comprises:

a device information collecting module operable to collect information of a plurality of
home devices;

a user information collecting module operable to collect information of home users;

an external home service information collecting module operable to collect information
of an operation between the home devices and an external home service or an operation between
the home users and another external home service;

a home application information collecting module operable to collect information of
home applications or contents included in a home server; and

a home agent information collecting module operable to collect information of the home
agent device itself.

14. (currently amended): A method of utilizing home-state information, comprising:
collecting information from home-state information sources on a home network through
an information collecting module in a home agent;
processing the collected information to generate home-state information;
analyzing the generated home-state information to produce an event which specifies the
generated home-state information;
announcing the event outside the home network; and
storing the generated home-state information in a computer-readable memory.

15. (original): The home-state information utilizing method according to claim 14,
further comprising announcing an event outside of a home by analyzing the home-state
information.

16. (currently amended): A system for utilizing home-state information, comprising:

- an information collecting module operable to collect information from various information sources in a network;
- a home-state generating module operable to process the collected information to generate home-state information;
- a home-state analyzing module operable to analyze the generated home-state information depending on home-state properties to produce analyzed information;
- a home-state storing module operable to store the information generated by the home-state generating module and information analyzed by the home-state analyzing module in a computer readable-memory;
- one or more applications in a computer-readable memory operable to control a predetermined home device using the generated home-state information or the analyzed information; and
- an Application Programming Interface (API) operable to transmit the information generated by the home-state generating module and the information analyzed by the home-state analyzing module to the applications,

wherein the home-state storing module stores a set of information sources and the combinations of the information sources.

17. (original): The home-state information utilizing system according to claim 16, wherein the one or more applications are constructed so that transmission or reception of home-state information therebetween is performed using Meta data for the information generated by

the home-state generating module and the information analyzed by the home-state analyzing module.

18. (new): The home-state information constructing method according to claim 1, wherein the home-state information sources include home devices, a home agent, home users, home services, and home applications.